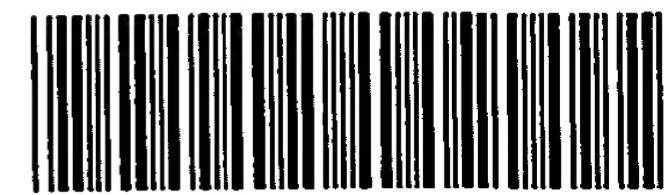


Johannsen



1600

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RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/636,259C

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P.6

Input Set : A:\10738-44.ST25.txt
 Output Set: N:\CRF4\03072003\I636259C.raw

3 <110> APPLICANT: Small, Kersten
 4 Liggett, Stephen
 6 <120> TITLE OF INVENTION: Alpha-2A-Adrenergic Receptor Polymorphisms
 8 <130> FILE REFERENCE: 10738-44
 10 <140> CURRENT APPLICATION NUMBER: 09/636,259C
 11 <141> CURRENT FILING DATE: 2000-08-10
 13 <160> NUMBER OF SEQ ID NOS: 26
 15 <170> SOFTWARE: PatentIn version 3.1
 17 <210> SEQ ID NO: 1
 18 <211> LENGTH: 1350
 19 <212> TYPE: DNA
 20 <213> ORGANISM: Homo sapiens
 22 <400> SEQUENCE: 1

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25 ggcggcgccc gggccacccc ttactccctg	120
27 ggcctgctca tgctgctcac cgtgttcggc	180
29 agccgcgcgc tcaaggcgcc ccaaaacctc	240
31 ctggtggcca cgctcgcat cccttctcg	300
33 ttcggcaagg ctgggtgcga gatctacctg	360
35 atcgtgcacc tgtgcgccat cagcctggac	420
37 tacaacctga agcgcacgccc gcgcgcgc	480
39 tcggccgtca tctcttccc gccgctcatc	540
41 ccgcagccgg ccgagccgcg ctgcgcgc	600
43 tgcatcggtc cttcttcgc tccctgcctc	660
45 cagatcgcca agcgtcgac ccgcgtgc	720
47 ggcgcgcgcg gggcaccga ggcgcaggccc	780
49 ccggggggcg cagaggccga accgctgccc	840
51 ggcgcgcgcg ggccgcgcga caccgacgc	900
53 cacgcgcgcg ggctccagg gccccgcaga	960
55 gcccgcgcga gccaggtaa gccgggcgac	1020
57 gggatcgaaa cgccggctgc aggcccggg	1080
59 cgctggcgcg ggccgcagaa ccgcgcagaag	1140
61 ggagtgttcg tgggtgtctg gttccccttc	1200
63 tgctccgtgc cacgcacgct ttcaaattc	1260
65 ttgaacccgg tcatactacac catttcaac	1320
67 ctctgtcgaa gggacaggaa gcggatcg	1350
70 <210> SEQ ID NO: 2	
71 <211> LENGTH: 1350	
72 <212> TYPE: DNA	
73 <213> ORGANISM: Homo sapiens	
75 <400> SEQUENCE: 2	
76 atgggctccc tgcagccgga cgcgggcaac	60
78 ggcggcgccc gggccacccc ttactccctg	120

RAW SEQUENCE LISTING

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Input Set : A:\10738-44.ST25.txt
Output Set: N:\CRF4\03072003\I636259C.raw

80 ggcctgctca tgctgctcac cgtgttcggc aacgtgctcg tcatcatcgc cgtgttcacg 180
 82 agccgcgcgc tcaaggcgcc caaaaacctc ttccctgggt ctctggcctc ggccgacatc 240
 84 ctggtgcca cgctcgcat cccttctcg ctggccaacq aggtcatggg ctactggta 300
 86 ttcggcaagg cttggtgcga gatctacctg gcgctcgacq tgctcttctg cacgtcgcc 360
 88 atcgtgcacc tgtgcgccat cagcctggac cgctacttgt ccatcacaca ggccatcgag 420
 90 tacaacctga agcgacgccc gcgcgcac aaggccatca tcatcaccgt gtgggtcatc 480
 92 tcggccgtca tctccttccc gccgctcatc tccatcgaga agaaggcg 540
 94 ccgcagccgg ccgagccgcg ctgcgagatc aacgaccaga agtggta 600
 96 tgcatacggt cttcttcgc tccctgcctc atcatgatcc tggta 660
 98 cagatcgcca agcgtcgcac ccgcgtgcca cccagccgc ggggtccgga cgccgtcgcc 720
 100 gcgcgcgcgg ggggcaccga gcgcaggccc aagggtctgg gcccgagcg cagcgccggc 780
 102 ccggggggcg cagaggccga accgctgccc acccagctca acggcgcccc tggcgagccc 840
 104 gcgcggccg ggccgcgcga caccgacgcg ctggacctgg aggagagctc gtcttccgac 900
 106 cacgcccggc ggcctccagg gcccccgcaga cccgagcg 960
 108 gcccgagcga gccaggtgaa gccgggcgac agcctgccc ggcgcggc gggggcgacg 1020
 110 gggatcgga cgccggctgc agggccggg gaggagcg 1080
 112 cgctggcg 1140
 114 ggagtgtcg tggtgtgctg gttccccttc ttcttcac 1200
 116 tgctccgtgc cacgcacgt cttcaaattc ttcttctgg tggta 1260
 118 ttgaaccgg tcatctacac catttcaac cacgattcc gccgcgcctt caagaagatc 1320
 120 ctctgtcg 1350
 123 <210> SEQ ID NO: 3
 124 <211> LENGTH: 450
 125 <212> TYPE: PRT
 126 <213> ORGANISM: Homo sapiens
 128 <400> SEQUENCE: 3
 130 Met Gly Ser Leu Gln Pro Asp Ala Gly Asn Ala Ser Trp Asn Gly Thr
 131 1 5 10 15
 134 Glu Ala Pro Gly Gly Ala Arg Ala Thr Pro Tyr Ser Leu Gln Val
 135 20 25 30
 138 Thr Leu Thr Leu Val Cys Leu Ala Gly Leu Leu Met Leu Leu Thr Val
 139 35 40 45
 142 Phe Gly Asn Val Leu Val Ile Ile Ala Val Phe Thr Ser Arg Ala Leu
 143 50 55 60
 146 Lys Ala Pro Gln Asn Leu Phe Leu Val Ser Leu Ala Ser Ala Asp Ile
 147 65 70 75 80
 150 Leu Val Ala Thr Leu Val Ile Pro Phe Ser Leu Ala Asn Glu Val Met
 151 85 90 95
 154 Gly Tyr Trp Tyr Phe Gly Lys Ala Trp Cys Glu Ile Tyr Leu Ala Leu
 155 100 105 110
 158 Asp Val Leu Phe Cys Thr Ser Ser Ile Val His Leu Cys Ala Ile Ser
 159 115 120 125
 162 Leu Asp Arg Tyr Trp Ser Ile Thr Gln Ala Ile Glu Tyr Asn Leu Lys
 163 130 135 140
 166 Arg Thr Pro Arg Arg Ile Lys Ala Ile Ile Ile Thr Val Trp Val Ile
 167 145 150 155 160
 170 Ser Ala Val Ile Ser Phe Pro Pro Leu Ile Ser Ile Glu Lys Lys Gly
 171 165 170 175
 174 Gly Gly Gly Pro Gln Pro Ala Glu Pro Arg Cys Glu Ile Asn Asp

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Input Set : A:\10738-44.ST25.txt

Output Set: N:\CRF4\03072003\I636259C.raw

175	180	185	190
178 Gln Lys Trp Tyr Val Ile Ser Ser Cys Ile Gly Ser Phe Phe Ala Pro			
179	195	200	205
182 Cys Leu Ile Met Ile Leu Val Tyr Val Arg Ile Tyr Gln Ile Ala Lys			
183	210	215	220
186 Arg Arg Thr Arg Val Pro Pro Ser Arg Arg Gly Pro Asp Ala Val Ala			
187 225	230	235	240
190 Ala Pro Pro Gly Gly Thr Glu Arg Arg Pro Asn Gly Leu Gly Pro Glu			
191	245	250	255
194 Arg Ser Ala Gly Pro Gly Gly Ala Glu Ala Glu Pro Leu Pro Thr Gln			
195	260	265	270
198 Leu Asn Gly Ala Pro Gly Glu Pro Ala Pro Ala Gly Pro Arg Asp Thr			
199	275	280	285
202 Asp Ala Leu Asp Leu Glu Glu Ser Ser Ser Asp His Ala Glu Arg			
203	290	295	300
206 Pro Pro Gly Pro Arg Arg Pro Glu Arg Gly Pro Arg Gly Lys Gly Lys			
207 305	310	315	320
210 Ala Arg Ala Ser Gln Val Lys Pro Gly Asp Ser Leu Pro Arg Arg Gly			
211	325	330	335
214 Pro Gly Ala Thr Gly Ile Gly Thr Pro Ala Ala Gly Pro Gly Glu Glu			
215	340	345	350
218 Arg Val Gly Ala Ala Lys Ala Ser Arg Trp Arg Gly Arg Gln Asn Arg			
219	355	360	365
222 Glu Lys Arg Phe Thr Phe Val Leu Ala Val Val Ile Gly Val Phe Val			
223	370	375	380
226 Val Cys Trp Phe Pro Phe Phe Thr Tyr Thr Leu Thr Ala Val Gly			
227 385	390	395	400
230 Cys Ser Val Pro Arg Thr Leu Phe Lys Phe Phe Trp Phe Gly Tyr			
231	405	410	415
234 Cys Asn Ser Ser Leu Asn Pro Val Ile Tyr Thr Ile Phe Asn His Asp			
235	420	425	430
238 Phe Arg Arg Ala Phe Lys Lys Ile Leu Cys Arg Gly Asp Arg Lys Arg			
239	435	440	445
242 Ile Val			
243	450		
246 <210> SEQ ID NO: 4			
247 <211> LENGTH: 450			
248 <212> TYPE: PRT			
249 <213> ORGANISM: Homo sapiens			
251 <400> SEQUENCE: 4			
253 Met Gly Ser Leu Gln Pro Asp Ala Gly Asn Ala Ser Trp Asn Gly Thr			
254 1	5	10	15
257 Glu Ala Pro Gly Gly Ala Arg Ala Thr Pro Tyr Ser Leu Gln Val			
258	20	25	30
261 Thr Leu Thr Leu Val Cys Leu Ala Gly Leu Leu Met Leu Leu Thr Val			
262	35	40	45
265 Phe Gly Asn Val Leu Val Ile Ile Ala Val Phe Thr Ser Arg Ala Leu			
266	50	55	60
269 Lys Ala Pro Gln Asn Leu Phe Leu Val Ser Leu Ala Ser Ala Asp Ile			

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Input Set : A:\10738-44.ST25.txt
 Output Set: N:\CRF4\03072003\I636259C.raw

270	65	70	75	80
273	Leu Val Ala Thr Leu Val Ile Pro Phe Ser Leu Ala Asn Glu Val Met			
274		85	90	95
277	Gly Tyr Trp Tyr Phe Gly Lys Ala Trp Cys Glu Ile Tyr Leu Ala Leu			
278		100	105	110
281	Asp Val Leu Phe Cys Thr Ser Ser Ile Val His Leu Cys Ala Ile Ser			
282		115	120	125
285	Leu Asp Arg Tyr Trp Ser Ile Thr Gln Ala Ile Glu Tyr Asn Leu Lys			
286		130	135	140
289	Arg Thr Pro Arg Arg Ile Lys Ala Ile Ile Ile Thr Val Trp Val Ile			
290		145	150	155
293	Ser Ala Val Ile Ser Phe Pro Pro Leu Ile Ser Ile Glu Lys Lys Gly			
294		165	170	175
297	Gly Gly Gly Pro Gln Pro Ala Glu Pro Arg Cys Glu Ile Asn Asp			
298		180	185	190
301	Gln Lys Trp Tyr Val Ile Ser Ser Cys Ile Gly Ser Phe Phe Ala Pro			
302		195	200	205
305	Cys Leu Ile Met Ile Leu Val Tyr Val Arg Ile Tyr Gln Ile Ala Lys			
306		210	215	220
309	Arg Arg Thr Arg Val Pro Pro Ser Arg Arg Gly Pro Asp Ala Val Ala			
310		225	230	235
313	Ala Pro Pro Gly Gly Thr Glu Arg Arg Pro Lys Gly Leu Gly Pro Glu			
314		245	250	255
317	Arg Ser Ala Gly Pro Gly Gly Ala Glu Ala Glu Pro Leu Pro Thr Gln			
318		260	265	270
321	Leu Asn Gly Ala Pro Gly Glu Pro Ala Pro Ala Gly Pro Arg Asp Thr			
322		275	280	285
325	Asp Ala Leu Asp Leu Glu Glu Ser Ser Ser Asp His Ala Glu Arg			
326		290	295	300
329	Pro Pro Gly Pro Arg Arg Pro Glu Arg Gly Pro Arg Gly Lys Gly Lys			
330		305	310	315
333	Ala Arg Ala Ser Gln Val Lys Pro Gly Asp Ser Leu Pro Arg Arg Gly			
334		325	330	335
337	Pro Gly Ala Thr Gly Ile Gly Thr Pro Ala Ala Gly Pro Gly Glu Glu			
338		340	345	350
341	Arg Val Gly Ala Ala Lys Ala Ser Arg Trp Arg Gly Arg Gln Asn Arg			
342		355	360	365
345	Glu Lys Arg Phe Thr Phe Val Leu Ala Val Val Ile Gly Val Phe Val			
346		370	375	380
349	Val Cys Trp Phe Pro Phe Phe Phe Thr Tyr Thr Leu Thr Ala Val Gly			
350		385	390	395
353	Cys Ser Val Pro Arg Thr Leu Phe Lys Phe Phe Phe Trp Phe Gly Tyr			
354		405	410	415
357	Cys Asn Ser Ser Leu Asn Pro Val Ile Tyr Thr Ile Phe Asn His Asp			
358		420	425	430
361	Phe Arg Arg Ala Phe Lys Lys Ile Leu Cys Arg Gly Asp Arg Lys Arg			
362		435	440	445
365	Ile Val			
366	450			

RAW SEQUENCE LISTING
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Input Set : A:\10738-44.ST25.txt
Output Set: N:\CRF4\03072003\I636259C.raw

369 <210> SEQ ID NO: 5
370 <211> LENGTH: 22
371 <212> TYPE: DNA
372 <213> ORGANISM: Homo sapiens
374 <400> SEQUENCE: 5
375 tttacccatc ggctctccct ac 22
378 <210> SEQ ID NO: 6
379 <211> LENGTH: 23
380 <212> TYPE: DNA
381 <213> ORGANISM: Homo sapiens
383 <400> SEQUENCE: 6
384 gagacaccag gaagagggtt tgg 23
387 <210> SEQ ID NO: 7
388 <211> LENGTH: 20
389 <212> TYPE: DNA
390 <213> ORGANISM: Homo sapiens
392 <400> SEQUENCE: 7
393 tcgtcatcat cggcggttc 20
396 <210> SEQ ID NO: 8
397 <211> LENGTH: 23
398 <212> TYPE: DNA
399 <213> ORGANISM: Homo sapiens
401 <400> SEQUENCE: 8
402 cgtaccactt ctggtcgttg atc 23
405 <210> SEQ ID NO: 9
406 <211> LENGTH: 24
407 <212> TYPE: DNA
408 <213> ORGANISM: Homo sapiens
410 <400> SEQUENCE: 9
411 gccatcatca tcaccgtgtg ggtc 24
414 <210> SEQ ID NO: 10
415 <211> LENGTH: 23
416 <212> TYPE: DNA
417 <213> ORGANISM: Homo sapiens
419 <400> SEQUENCE: 10
420 ggctcgctcg ggcccttgccct ttg 23
423 <210> SEQ ID NO: 11
424 <211> LENGTH: 22
425 <212> TYPE: DNA
426 <213> ORGANISM: Homo sapiens
428 <400> SEQUENCE: 11
429 gacctggagg agagctcgtc tt 22
432 <210> SEQ ID NO: 12
433 <211> LENGTH: 23
434 <212> TYPE: DNA
435 <213> ORGANISM: Homo sapiens
437 <400> SEQUENCE: 12
438 tgaccgggtt caacgagctg ttg 23
441 <210> SEQ ID NO: 13

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/09/636,259C

DATE: 03/07/2003
TIME: 08:08:39

Input Set : A:\10738-44.ST25.txt
Output Set: N:\CRF4\03072003\I636259C.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:19; N Pos. 7

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/636,259C

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Input Set : A:\10738-44.ST25.txt
Output Set: N:\CRF4\03072003\I636259C.raw

L:507 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:0